

Factors of Attractiveness Influencing Consumers' Decisions to Purchase Vivo Smartphones at Sunrise Cellular Bireuen

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Abstract.

The purpose of this study was to determine and explain whether the factors of product attractiveness affect consumer purchasing decisions to buy smartphones Vivo at Sunrise Cellular Bireuen. The author draws the hypothesis that there are several factors, namely product quality, product variety and product features that influence consumer decisions to buy smartphones Vivo. The population in this study are consumers who buy smartphones Vivo at Sunrise Cellular Bireuen. The sampling technique in this study used random sampling (randomly) as many as 60 respondents, the data collection techniques used were questionnaires, literature studies, and interviews. The instrument test in this study uses multiple linear regression test, classical assumption test, t test, f test, and coefficient of determination with sig level. (a) 0.05 data analysis using software statistical data processing SPSS version 23.0 for windows. The results of this study found that product quality, product variety, and product features had a significant effect overall. The value of the coefficient of determination obtained $R^2 = 0.495$ concluded that 49.5% of consumer purchasing decisions are influenced by product quality, product variations, and product features, while the remaining 50.5% is influenced by other variables not examined.

Keywords: Product quality; product variety; product features and consumer purchasing decisions.

I. INTRODUCTION

Communication tools are a necessity for today's society. Almost all people use communication devices in their daily lives. One of these is the smartphone, which is currently very popular in the modern era. Besides being trendy, smartphones also come with various attractive offers, such as advanced features and modern, appealing designs. Smartphones are not only used for communication; with their advanced features, they are able to perform tasks that previously could only be done on computers or laptops. Along with the rapid development of increasingly sophisticated technology, smartphones are now equipped with the best hardware and software specifications to make it easier for users to carry out various activities such as accessing the internet, downloading, uploading, streaming, and chatting. This condition encourages every communication device manufacturer to continue developing its technology to meet market demand. As public demand continues to increase, many companies compete by offering new products in various ways. Consumers need to be cautious when purchasing smartphones today, because many illegal smartphones are circulating in the market and are sold by numerous vendors. Indonesia is one of the largest markets for smartphone sales, as demand continues to increase every year. Various brands compete in the Indonesian market by offering their respective product advantages. Vivo is a global smartphone brand that focuses on introducing perfect sound quality and photography with cutting-edge technology. Vivo develops dynamic products with a youthful, stylish, and passionate image. Vivo continues to emphasize cameras and music in line with the interests of young people and modern society today.

Founded in 2009, Vivo began marketing its first product in 2012, namely the Vivo X1, which was claimed to be the world's first smartphone with a Hi-Fi (High Fidelity) audio chipset, a technology that is claimed to provide a new experience in listening to music (Dewi et al., 2020). Dewi, N. A., Ulya, B., Siregar, S. A., & Harahap, J. M. (2020). Since then, Vivo has consistently made cameras and music its main strengths. With these two aspects, the Senior Brand Manager of Vivo Mobile Indonesia, Meutia Setijono, stated that she believes Vivo is able to reach its target market of young people, millennials in the age range from their teens to early twenties, who, according to her, are almost inseparable from cameras and music (Source:

SWA.co.id). Vivo smartphone products are divided into three types: the X Series, Y Series, and V Series. The Y Series targets the lower-middle segment, the X Series targets the upper-middle segment, and the V Series, also known as the selfie series, specifically targets the middle class, especially those who enjoy taking selfies. To attract consumer interest in purchasing the offered products, high product quality, competitive price perceptions, diverse product variations, and features that are able to provide satisfaction to consumers are required. Consumer satisfaction is an evaluation carried out by a person after making a purchase, while dissatisfaction arises when expectations are not met. This indicates that consumers are becoming more selective in paying attention to the products they intend to buy. Good product quality will have a positive influence on the company, because consumers will choose products with good quality. Consumers consider various factors before making a purchase.

Companies must be able to maintain and improve the quality they already have so that consumers do not switch to other products. According to Kotler and Armstrong (2019:266), products with unquestionable quality can influence the purchasing decision process. Product quality includes durability, reliability, advancement, strength, ease of packaging, product repair, and its characteristics. Product variation is one of the factors that influence consumer satisfaction and loyalty. The intense competition in capturing a highly competitive market in the telecommunications industry, particularly in the smartphone category, presents consumers with various product choices from competing brands, especially Vivo smartphones. The more companies offer various smartphone variations to consumers, the more choices consumers have, and the more selective they become in choosing smartphones that match their needs and desires. According to Kotler and Armstrong (in Sari, 2016:3), features are a competitive tool to differentiate a company's products from competitors' products. Being the first producer to introduce valuable new features is one of the most effective ways to compete. With the product features offered by manufacturers, consumers will feel more satisfied with products that meet their needs. One of the distinctive features of Vivo smartphones is the emphasis on audio quality; on average, its devices are always equipped with a special audio chip often referred to as Hi-Fi.

Features and technological sophistication are highly needed by consumers in today's era, as consumers favor speed and novelty. Features are advantages or content contained in a product that differentiate it from products of other companies. It cannot be denied that even though the company claims Vivo products to be faster than other smartphones, there are still some shortcomings in its features, such as frequent lagging and freezing, automatic restarts, the smartphone screen turning off automatically, and applications failing to open. Currently, many companies provide smartphones with various brands, features, designs, and quality variations according to consumer needs and preferences. Based on the background described above, the author is interested in conducting a study entitled **“Factors of Attractiveness Influencing Consumers’ Decisions to Purchase Vivo Smartphones at Sunrise Cellular Bireuen.”**

II. RESULT AND DISCUSSION

1.1 Classical Assumption Test Normalitas

The normality test is used to determine whether the population data of the independent variables and the dependent variable in the regression model are normally distributed or not. A regression equation is considered good if the data of both independent and dependent variables are normally distributed. The normality test can be conducted using the one-sample Kolmogorov–Smirnov test. The conclusion can be seen from the significance value, which indicates whether the distribution is normal or not. If the significance value is greater than 0.05, the distribution is normal; conversely, if the significance value is less than 0.05, the variables are not normally distributed.

Tabel 2.1. Hasil Uji *Kolmogorov Smirnov*

Sampel	Nilai <i>Kolmogorov Smirnov</i>	Signifikansi	Kesimpulan
60	0,097	0,05	Ha diterima

Source: Data processed using SPSS version 23, 2021.

Based on the results above, it can be seen that the Kolmogorov–Smirnov value is $0.097 > 0.05$; therefore, it can be concluded that the tested data are normally distributed.

Multicollinearity Test

The multicollinearity test is conducted to determine whether there is similarity among independent variables. Similarity between variables can result in very strong correlations. The multicollinearity test can be identified using the Variance Inflation Factor (VIF) and tolerance values. Multicollinearity occurs if the tolerance value is less than 0.01 or if the VIF value is equal to or greater than 10. If the VIF value does not exceed 10, it can be concluded that multicollinearity does not occur

Tabel 2.2. Results of the Multicollinearity Test

Variabel Independen	Tolerance	FIV
Product Quality	0,122	8,180
Product Variation	0,147	6,799
Product Features	0,479	2,087

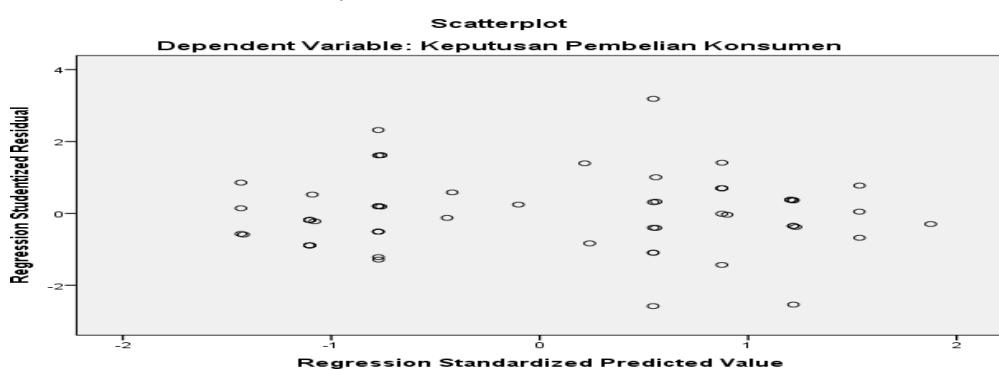
Source: Data processed using SPSS version 23, 2021.

Based on the data above, it can be seen that each independent variable has a tolerance value greater than 0.01 and a VIF value less than 10; therefore, it can be concluded that there is no multicollinearity among the independent variables in this regression model.

Heteroscedasticity Test

Heteroscedasticity occurs when the errors in the observed model do not have constant variance from one observation to another. To determine whether heteroscedasticity exists, it can be identified from Figure 2.1 below:

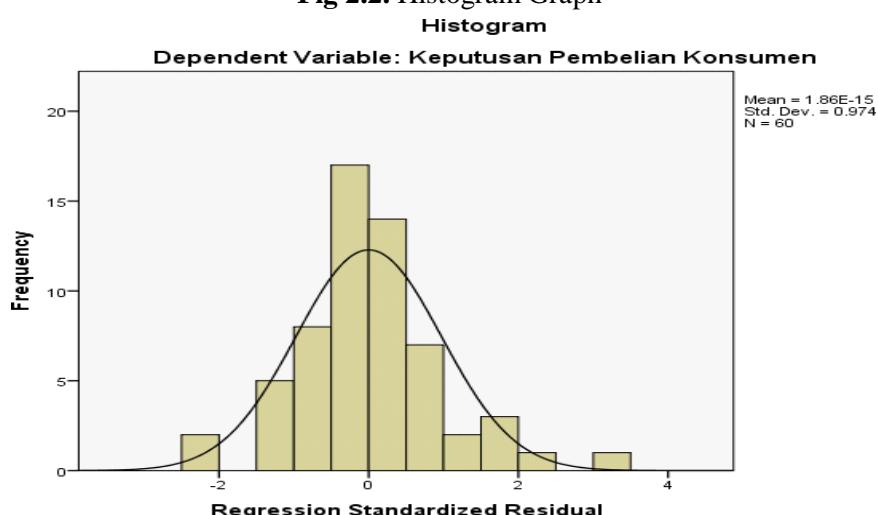
Fig 2.1. Results of the Heteroscedasticity Test



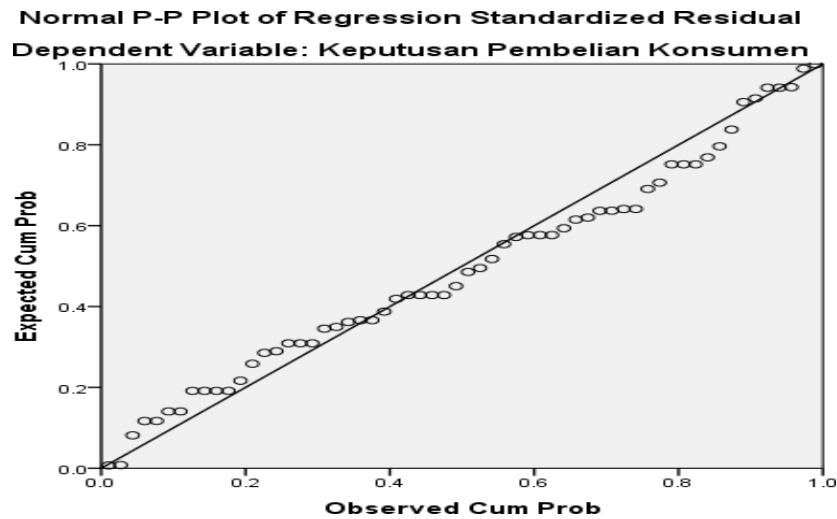
Source: Data processed using SPSS version 23, 2021.

Based on the Scatterplot output, it can be seen that the points are spread out, do not cluster, and do not form a clear specific pattern; therefore, it can be concluded that heteroscedasticity does not occur.

Fig 2.2. Histogram Graph



Based on Figure 2.2, the histogram of the residuals forms a bell-shaped curve. Therefore, this indicates that the regression model meets the assumption of normality.



Source: Data processed using SPSS version 23, 2021.

Based on Figure 2.3, the Normal Probability Plot shows that the points are distributed around the diagonal line and follow the direction of the diagonal line. Therefore, it can be concluded that the regression model meets the assumption of normality.

2.2 Hypothesis Testing

Multiple regression analysis is used to determine the effect of the independent variables (product quality, product variation, and product features) on the dependent variable (consumer purchasing decisions). From the estimation results, a multiple linear regression equation can be formulated. By using SPSS version 23 with the regression method, a multiple regression equation is obtained as follows

Table 2.3. Results of Multiple Linear Regression Test (Coefficients^a)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	13.818	2.845		4.857	.000
Kualitas Produk	.459	.145	.435	3.167	.002
Variasi Produk	.443	.389	.309	1.138	.260
Fitur Produk	.017	.299	.014	.058	.954

Source: Data processed using SPSS version 23, 2021

Dependent Variable: Consumer Purchasing Decision

From the data above, the regression equation can be written as follows:

$$Y = \alpha + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

$$Y = 13.818 + 0.459X_1 + 0.443X_2 + 0.017X_3$$

The equation can be explained as follows:

- The constant (α) has a value of 13.818, which indicates that if there is no influence from the variables of product quality, product variation, and product features, the consumer purchasing decision will remain at 13.818.
- The regression coefficient of X_1 (β_1) is 0.459, meaning that for every one-unit increase in the product quality variable, the consumer purchasing decision will increase by 0.459 units.
- The regression coefficient of X_2 (β_2) is 0.443, meaning that for every one-unit increase in the product variation variable, the consumer purchasing decision will increase by 0.443 units.
- The regression coefficient of X_3 (β_3) is 0.017, meaning that for every one-unit increase in the product feature variable, the consumer purchasing decision will increase by 0.017 units.

Thus, based on the multiple linear regression analysis above, it can be concluded that product quality, product variation, and product features influence consumers' decisions to purchase Vivo smartphones at Sunrise Cellular Bireuen.

t-Test (Partial Test)

The t-test is used to examine each independent variable individually against the dependent variable.

The results of the t-test can be seen in Table 2.4 as follows:

Table 2.4. Results of the t-Test

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	13.818	2.845		4.857	.000
Kualitas Produk	.459	.145	.435	3.167	.002
Variasi Produk	.443	.389	.309	1.138	.260
Fitur Produk	.017	.299	.014	.058	.954

Source: Data processed using SPSS version 23

a. Based on the calculation, product quality (X_1) has a t-count value of 3.167, which is greater than the t-table value of 2.003 ($t_{count} > t_{table}$: $3.167 > 2.003$). Therefore, H_0 is rejected and H_a is accepted, with a significance level of $\alpha = 0.002 < 0.05$. This means that partially, product quality has a positive effect on consumers' purchasing decisions for smartphones at Sunrise Cellular Bireuen.

b. Based on the product variation variable (X_2), a t-count value of 1.138 is obtained with a significance level of 0.260. When compared with the t-table value, $t_{count} (1.138) < t_{table} (2.003)$ and the significance level of $0.260 > 0.05$; therefore, H_0 is accepted and H_a is rejected. It can be concluded that partially, product variation does not have an effect on consumers' purchasing decisions for smartphones at Sunrise Cellular Bireuen.

c. Based on the product feature variable (X_3), a t-count value of 0.058 is obtained with a significance level of 0.954. When compared with the t-table value, $t_{count} (0.058) < t_{table} (2.003)$ and the significance level of $0.954 > 0.05$; therefore, H_0 is accepted and H_a is rejected. It can be concluded that partially, product features have a negative effect on consumers' purchasing decisions for smartphones at Sunrise Cellular Bireuen.

F-Test (Simultaneous Test)

The F-test is used to examine whether all independent variables simultaneously affect the dependent variable. The F-test is conducted using the criteria that if the significance value is less than 0.05 or the F-count is greater than the F-table value, then the independent variables (X) have an effect on the dependent variable (Y). Conversely, if the significance value is greater than 0.05 or the F-count is less than the F-table value, then the independent variables do not have an effect on the dependent variable.

Table 2.5. Results of the F-Test

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	114.541	3	38.180	18.265	.000 ^b
Residual	117.059	56	2.090		
Total	231.600	59			

a. **Dependent Variable:** Consumer Purchasing Decision

b. **Predictors:** (Constant), Product Features, Product Quality, Product Variation

Source: Data processed using SPSS version 23, 2021

Based on Table 2.5, the calculated F value is 18.265 with a significance value of 0.000. Since the calculated F value of 18.265 is greater than the F-table value of 2.537, it can be concluded that the independent variables (Product Quality, Product Variation, and Product Features) have a significant overall effect.

Coefficient of Determination Test (R^2)

This analysis is used to determine how much influence the independent variables have on the dependent variable, as indicated by a percentage. The results of the coefficient of determination are as follows.

Table 2.6. Results of the Coefficient of Determination Test (R^2) Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.703 ^a	.495	.467	1.44580

Source: Data processed using SPSS version 23, 2021

a. **Predictors:**(Constant), Product Features, Product Quality, Product Variation

b. **Dependent Variable:**Consumer Purchasing Decision

Source: Data processed using SPSS version 23, 2021

The coefficient of determination (R^2) indicates the magnitude of the contribution of the independent variables to the dependent variable. The calculation results shown in Table 4.15 above indicate an R^2 value of 0.495. It can be concluded that 49.5% of consumers' purchasing decisions are influenced by product quality, product variation, and product features, while the remaining 50.5% are influenced by other variables not examined in this study.

Discussion

Based on the results and analysis conducted on consumers who purchased Vivo smartphones at Sunrise Cellular Bireuen, most respondents were aged 18–25 years, accounting for 45% (which can be categorized as students). In terms of gender, 38% or 23 respondents were male, while 62% or 37 respondents were female. These results indicate that the majority of consumers purchasing Vivo smartphones are young people. From the product quality factor, the majority of respondents stated that 8% were neutral, 14% agreed, and 25% strongly agreed to choosing Vivo smartphones because their performance was satisfactory and met expectations, the repair process was satisfactory in terms of time and cost, service quality was good, battery durability exceeded 4 hours of use, and the design appearance was elegant. Out of 60 respondents, the remaining 53% chose other factors that influenced their decision to purchase Vivo smartphones. From the product feature factor, 24% of respondents agreed and 68% strongly agreed that Vivo smartphones have different sizes according to the model, different prices according to the level, varied appearances in line with current trends, and that the products are easily found at official Vivo outlets. Out of 60 respondents, 8% chose other factors that influenced their decision to purchase Vivo smartphones. From the product variation factor, it can be seen that 67% agreed and 33% strongly agreed that Vivo smartphones have clear sound features, are easy to use, advanced, attractive, diverse, and that the smartphone display makes it easy to access the available features. Thus, product variation is one of the factors that influence the decision to purchase Vivo smartphones. Based on the analysis of respondents' answers, it can be seen that these factors influence consumers' decisions to purchase Vivo smartphones at Sunrise Cellular. This is consistent with the statistical data tests conducted t_{count} , which show that higher product quality will increase consumers' purchasing decisions for Vivo smartphones. In this study, the effect of product quality on consumer purchasing decisions is positive; in other words, H_0 is rejected and H_a is accepted.

Hypothesis 1: Product quality influences consumers' decisions to purchase Vivo smartphones. From the regression results, the t-test coefficient shows a t-count value of 3.167, which is greater than the t-table value of 2.003 ($t_{\text{count}} > t_{\text{table}}$: $3.167 > 2.003$). Thus, H_0 is rejected and H_a is accepted, with a significance level of $\alpha = 0.002 < 0.05$. This means that partially, product quality has a positive effect on consumers' purchasing decisions for Vivo smartphones at Sunrise Cellular Bireuen.

Hypothesis 2: Product variation influences consumers' decisions to purchase Vivo smartphones. From the regression results, the t-count value is 1.138 with a significance level of 0.260. When compared with the t-table value, $t_{\text{count}} (1.138) < t_{\text{table}} (2.003)$ and the significance level of $0.260 > 0.05$; therefore, H_0 is accepted and H_a is rejected. It can be concluded that partially, product variation has a negative effect on consumers' purchasing decisions for Vivo smartphones at Sunrise Cellular Bireuen.

Hypothesis 3: Product features influence consumers' decisions to purchase Vivo smartphones. From the regression results, the t- value is 0.058 with a significance level of 0.954. When compared with the t-table value, $t_{\text{count}} (0.058) < t_{\text{table}} (2.003)$ and the significance level of $0.954 > 0.05$; therefore, H_0 is accepted and H_a is rejected. It can be concluded that partially, product features have a negative effect on consumers' purchasing decisions for Vivo smartphones at Sunrise Cellular Bireuen. Based on the analysis results and the answers to the research problems, it is known that product quality is a positive factor influencing consumers' decisions to purchase Vivo smartphones. The other two factors have a negative effect on consumers' purchasing decisions, possibly due to other influencing factors not examined. The author concludes that product quality is the factor that provides a distinct competitive advantage for Vivo smartphones.

III. CONCLUSION

Based on the results of data analysis and discussion in this study, the following conclusions can be drawn. In terms of age, the majority of respondents who purchased Vivo smartphones were aged 18–25 years (45%). Based on gender, most respondents were female (62%). Based on occupation, most respondents were students (42%). Product quality has a positive effect on consumers' purchasing decisions; the better the quality of a product, the higher the likelihood of consumers deciding to purchase Vivo smartphones. Product variation partially has a negative effect on consumers' purchasing decisions for Vivo smartphones at Sunrise Cellular Bireuen. Product features partially have a negative effect on consumers' purchasing decisions for Vivo smartphones at Sunrise Cellular Bireuen. Product quality, product variation, and product features simultaneously are factors that influence consumers' decisions to purchase Vivo smartphones at Sunrise Cellular Bireuen.

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